

SECRET

(When Filled In)

FILE INFO

REPRODUCTION PROHIBITED

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IDEALIST DM-4

SUBJ: AVIONICS RECOMMENDATIONS FOR "R" MODEL REVIEW BOARD.

1. PROBLEM: THE SEL-CALL DECODER HAS A HIGH NOISE FALSE ALARM RATE, AT THE SAME TIME THE SEL-CALL INTERROGATOR USING ESSENTIALLY THE SAME CIRCUITS HAS A NEGLIGIBLE FALSE ALARM RATE. THE BASIC DIFFERENCE BETWEEN THE TWO UNITS IS THE SWITCHING RATE. THE DECODER UTILIZES A SWITCHING RATE OF 100 CPS WHICH IS THE SAME AS, OR A MULTIPLE OF THE FREQUENCY SYNTHESIZER OF THE 718T. THIS PROBABLY MAKES THE UNIT OVERLY SENSITIVE TO FALSE ALARMS.

RECOMMENDATION: CHANGE THE SWITCHING RATE OF THE SEL-CALL DECODER TO ONE OF THE ALLOTTED FREQUENCIES OTHER THAN 100 CPS.

2. PROBLEM: AT EVERY ARTICLE PRE-FLIGHT A PRESSURIZED PANEL MUST BE REMOVED TO ACTIVATE THE A.D.C. TEST SWITCH. THIS CAUSES UNDUE WEAR AND TEAR ON THE PRESSURE SEAL AND PANEL INVOLVED.

RECOMMENDATION: RELOCATE THE A.D.C. TEST SWITCH TO THE

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"E" BAY IN SUCH A POSITION WHERE IT MAY BE REACHED WITH
SYSTEM 13C INSTALLED.

3. PROBLEM: WHEN SYSTEMS 6B/17B RECORDERS ARE
INSTALLED IN THE ARTICLE AND THE SYSTEMS ARE NOT TURNED ON
THERE IS NO VOLTAGE TO THE RECORDER HEATERS. THIS COULD
CAUSE EXCESSIVE CONDENSATION IF THE RECORDERS ARE OPENED
IMMEDIATELY AFTER LANDING.

RECOMMENDATION: REWIRE THE HEATER CIRCUITS TO WHERE THEY
ARE NOT ANYTIME A RECORDER IS INSTALLED REGARDLESS OF THE
SYSTEMS 6B/17B SWITCH POSITION.

4. PROBLEM: THE MECHANICAL INSTALLATION OF THE O/S
MARK 111 A/B RECEIVER IS OF POOR DESIGN. IN ITS PRESENT
CONFIGURATION THIS UNIT IS VERY AGGRAVATING TO REMOVE AND
INSTALL AND COULD PRESENT A HAZARD TO THE ARTICLE. THE
UNIT IS MOUNTED UPSIDE DOWN HELD BY TWO KNURLED NUTS WITH
NO BASE SUPPORT. THE WEIGHT OF THE UNIT IS CONSTANTLY PULLING
AGAINST ITS MEAGER OVERHEAD SUPPORT. ON SEVERAL OCCASIONS
THE UNIT HAS BEEN SQUAWKED BY AN INSPECTOR AS BEING ON THE
VERGE OF FALLING LOOSE INTO THE ENTRAILS OF THE ARTICLE,
EVEN THOUGH AN INSPECTOR HAD APPROVED THE SECURITY OF THE

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INSTALLATION WHEN MADE. SAFETY WIRE IS USED, HOWEVER IT APPEARS BETWEEN NORMAL ARTICLE VIBRATION AND FLEXING THIS UNIT WILL WORK LOOSE OVER A PERIOD OF TIME.

RECOMMENDATION: RE-ENGINEER THE MECHANICAL INSTALLATION OF THE O/S MARK 111 A/B RECEIVER.

5. PROBLEM: TO MORE FULLY UTILIZE THE A.M.U. FOR EVALUATION OF POST MISSION RESULTS.

RECOMMENDATIONS: THAT THE FOLLOWING BITS, IF AVAILABLE BE ADDED:

- A. SYS17B HIGH SPEED SWITCH ON
- B. HIGH SPEED RECORDER GREEN LIGHT ON
- C. AUTO-PILOT TURN RIGHT
- D. AUTO-PILOT TURN LEFT
- E. CONFIG SWITCH ON
- F. CONFIG ANGLE PRESET ON

IT IS OF COURSE TO BE UNDERSTOOD THAT IF IS TO BE USED ON ALL MISSION FLIGHTS, ITEM FIVE IS SUPERFLUOUS.

6. PROBLEM: NOMENCLATURE OF SWITCH POSITIONS ON THE SYSTEMS 6B/17B CONTROL PANEL DO NOT AGREE WITH INSTRUCTION, THUS AT TIMES CAUSING SOME PILOT CONFUSION AS GREEN CARDS ARE ALWAYS ANNOTATED BY THE

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RECOMMENDATION: THAT THE SYSTEM 6B/17B CONTROL PANEL
HAVE DUAL NOMENCLATURE OR A SEPARATE REMOVEABLE PLACARD BE
PROVIDED FOR EACH SYSTEM.

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